

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Berenbaum et al.
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 Serial No.: 09/538,670
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 Group: 2154
 Examiner: Larry Donaghue

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: Kevin Mason Date: August 29, 2003

Title: Method and Apparatus for Allocating Functional Units in a Multithreaded VLIW Processor

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Attention: Official Draftsperson

Sir:

Applicants submit herewith five (5) sheets of formal drawings in the above-referenced application.

Respectfully submitted,

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Date: August 29, 2003



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FIG. 1
PRIOR ART

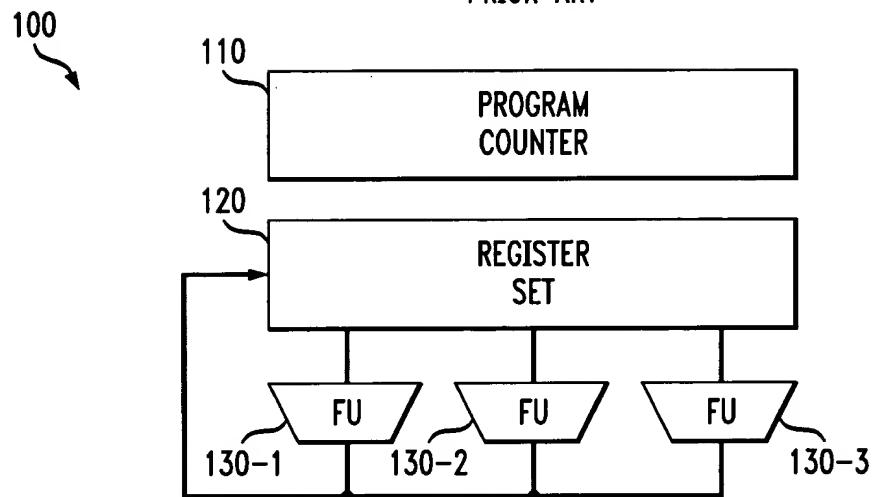
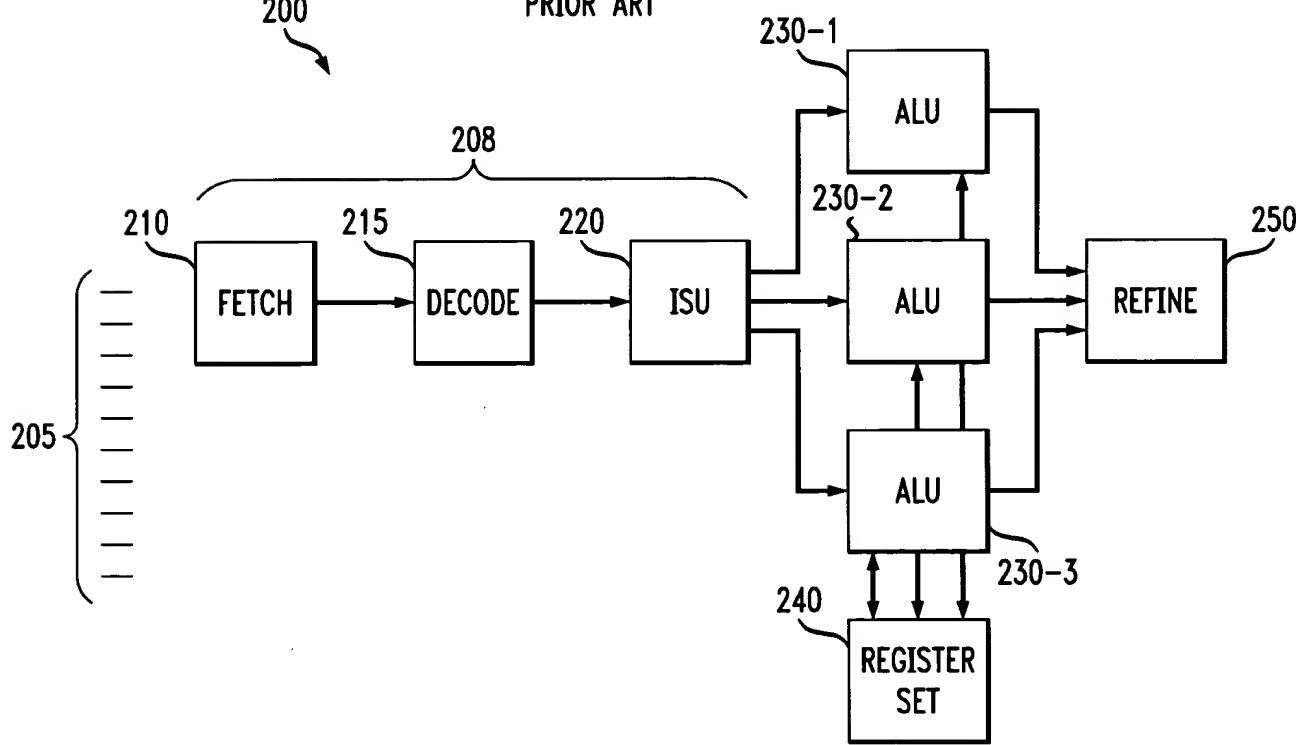


FIG. 2
PRIOR ART

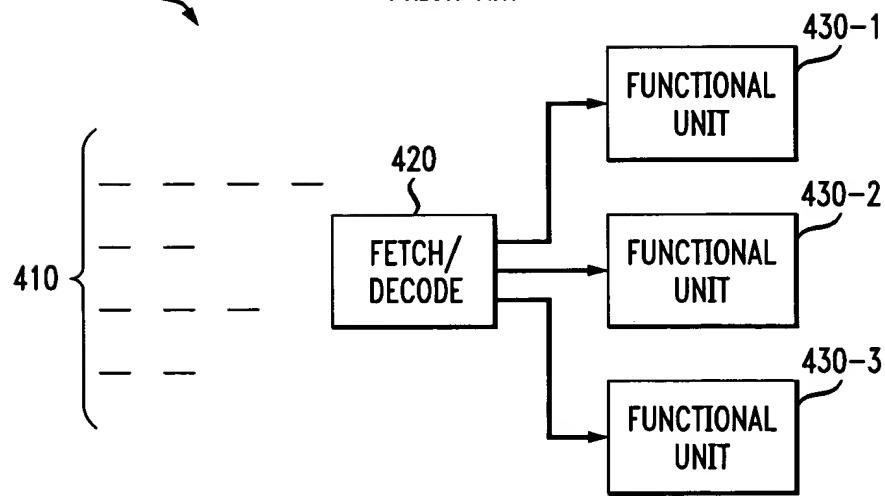




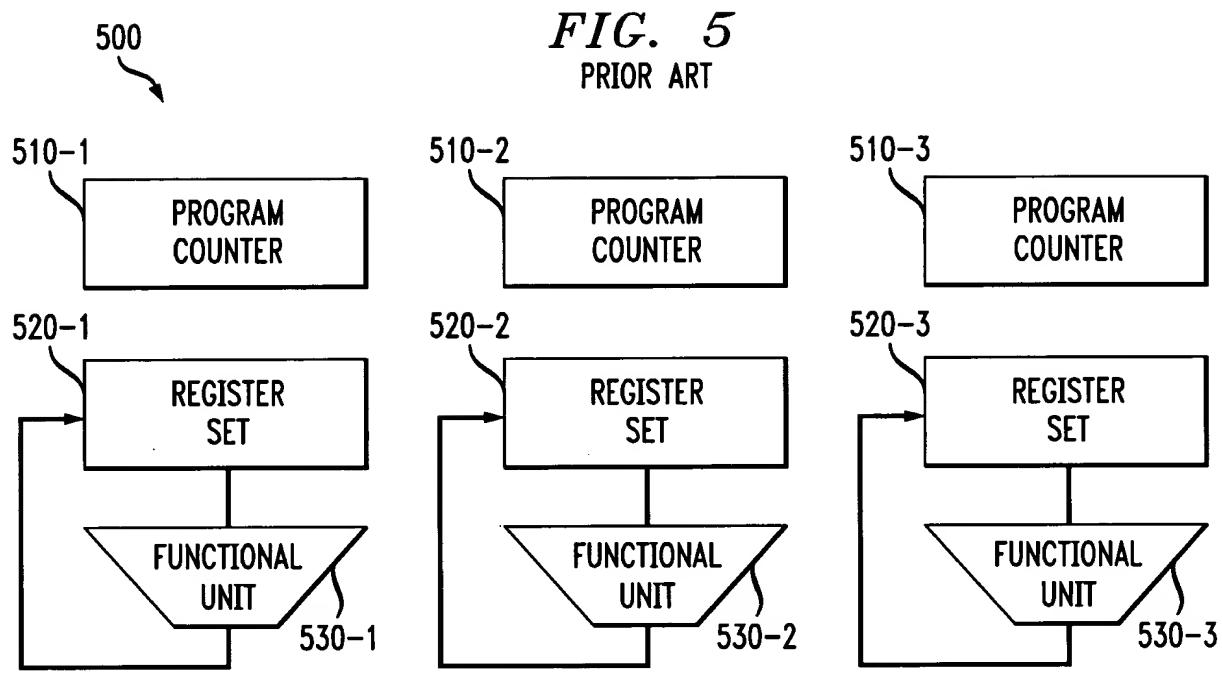
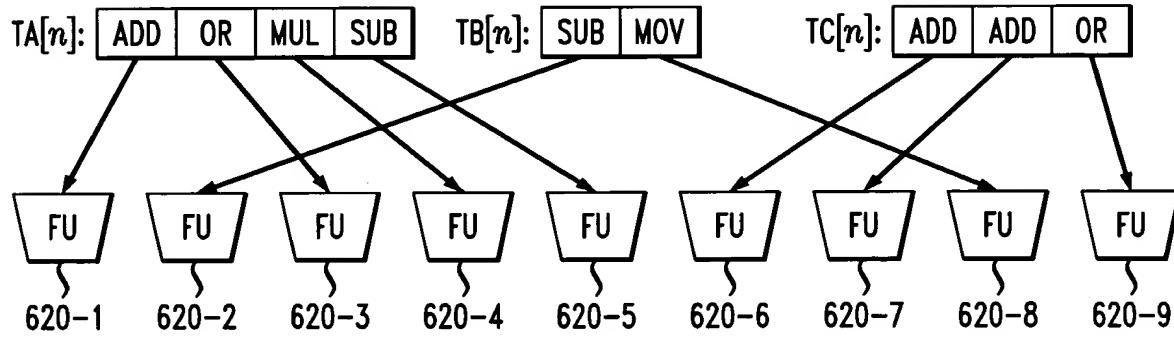
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FIG. 3

310 {
L3: ADD R0, R1, R2
L2: SUB R3, R4, R2
L1: OR R6, R1, R5

FIG. 4
PRIOR ART

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**FIG. 6**



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FIG. 7A
PRIOR ART

700

710

720

730

FETCH
GET A PACKET (UP
TO K INSTRUCTIONS)
FROM MEMORY

DECODE
DETERMINE FUs AND
REGISTERS FOR UP TO
K INSTRUCTIONS

EXECUTE:
PERFORM
OPERATION AND
PROCESS RESULT

750

FIG. 7B

760

770

780

790

FETCH
GET UP TO N
PACKETS (UP TO K
INSTRUCTIONS)
FROM MEMORY

DECODE
DETERMINE FUs
AND REGISTERS
NEEDED FOR UP TO
N*K INSTRUCTIONS

ALLOCATE
SELECT
APPROPRIATE
INSTRUCTIONS AND
ASSIGN THEM TO FUs

EXECUTE:
PERFORM
OPERATION
AND PROCESS
RESULT

780

FIG. 8

